

WHAT IS CLAIMED IS:

1           1.     A method of treating a focal muscle spasm, comprising  
2     administering, by intramuscular injection, a therapeutically effective dose of an  
3     immunotoxin conjugate to a muscle of said focal muscle spasm, wherein said  
4     immunotoxin conjugate comprises an antibody conjugated to a toxin selected  
5     from the group consisting of: ricin and abrin, wherein said antibody is  
6     selectively reactive, under immunologically reactive conditions, to a nicotinic  
7     acetylcholine receptor (nAChR).

1           2.     The method of claim 1, wherein the antibody is a monoclonal  
2     antibody.

1           3.     The method of claim 1, wherein said mammalian acetylcholine  
2     receptor is a human acetylcholine receptor.

1           4.     The method of claim 1, wherein said toxin is ricin.

1           5.     The method of claim 1, wherein the focal muscle spasm is selected  
2     from the group consisting of: blepharospasm, cervical dystonia, hand dystonia,  
3     limb dystonia, hemifacial spasm, bruxism, strabismus, VI nerve palsy,  
4     spasmodic dysphonia, and oromandibular dystonia.

1           6.     A method of treating a focal muscle spasm, comprising  
2     administering, by intramuscular injection, a therapeutically effective dose of an  
3     immunotoxin conjugate to a muscle of said focal muscle spasm, wherein said  
4     immunotoxin conjugate comprises an antibody conjugated to a galactose  
5     binding moiety and a toxin selected from the group consisting of: ricin-A and  
6     abrin-A, wherein said antibody is selectively reactive, under immunologically  
7     reactive conditions, to a nicotinic acetylcholine receptor (nAChR).

1           7.     The method of claim 6, wherein said galactose binding moiety is  
2     selected from the group consisting of: ricin-B and abrin-B.

1           8.     The method of claim 6, wherein the antibody is a monoclonal  
2 antibody.

1           9.     The method of claim 6, wherein said mammalian acetylcholine  
2 receptor is a human acetylcholine receptor.

1           10.    The method of claim 6, wherein said toxin is ricin.

1           11.    The method of claim 6, wherein the focal muscle spasm is selected  
2 from the group consisting of: blepharospasm, cervical dystonia, hand dystonia,  
3 limb dystonia, hemifacial spasm, bruxism, strabismus, VI nerve palsy,  
4 spasmodic dysphonia, and oromandibular dystonia.

1           12.    An immunotoxin conjugate, comprising an antibody conjugated to a  
2 toxin selected from the group consisting of: ricin and abrin, wherein said  
3 antibody is selectively reactive, under immunologically reactive conditions, to a  
4 mammalian nicotinic acetylcholine receptor.

1           13.    The immunotoxin of claim 12, wherein the antibody is a monoclonal  
2 antibody.

1           14.    The immunotoxin conjugate of claim 12, wherein said mammalian  
2 acetylcholine receptor is a human acetylcholine receptor.

1           15.    The immunotoxin conjugate of claim 12, wherein said toxin is ricin.